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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/540,362	06/23/2005	Viatcheslav Dmitrievich Shapovalov	0065.0001US1	3493
29127	7590	08/30/2007	EXAMINER	
HOUSTON ELISEEVA			ZHU, WEIPING	
4 MILITIA DRIVE, SUITE 4				
LEXINGTON, MA 02421				
			ART UNIT	PAPER NUMBER
			1742	
			MAIL DATE	DELIVERY MODE
			08/30/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/540,362	Applicant(s) SHAPOVALOV ET AL.	
	Examiner Weiping Zhu	Art Unit 1742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 August 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>See Continuation Sheet</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-6, 8-18, 20 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Schulze (US 4,561,947).

With respect to claim 1, 10, and 12-14, Schulze ('947) discloses a method for extracting a precious metal from an ore comprising: treating the ore with an oxidant in the presence of a solvent (i.e. a liquid phase recovery as claimed in the instant claim 13) and a reducing agent, whereby the oxidant and the reducing agent react to generate reaction products that oxidize or form complexes with the metal, thereby extracting the metal from the ore, wherein the metal compounds dissolve in the liquid phase as claimed in the instant claim 12 (col. 2, lines 1-13). Schulze ('947) does not disclose that the reaction products of the oxidant and the reducing agent include additional oxidizing agents (e.g. radicals) as claimed in the instant claims 10 and 12-14. However, it has been well held where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established. In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977), MPEP 2112.01 [R-3] I. In the instant case, the claimed and Schulze ('947)'s solutions are

identical or substantially identical in composition and are produced by identical or substantially identical processes. Therefore, the solution of Schulze ('947) anticipates the claimed solution. The same additional oxidizing agents including radicals would be expected in the solution of Schulze ('947)' as in the claimed solution.

With respect to claims 2-4, 15 and 16, Schulze ('947) discloses that the ore includes "problem ores" (i.e. the robust minerals as claimed), a carbonaceous component and more than one nonferrous, rare or precious metals (col. 2, lines 14-32).

With respect to claims 5 and 17, Schulze ('947) discloses that the metal comprises gold (col. 5, lines 28-30).

With respect to claims 6 and 18, Schulze ('947) discloses that the solvent is acidic (abstract).

With respect to claims 8, 9, 20 and 21, Schulze ('947) discloses that the oxidant comprises chlorates and the reducing agent comprises sulfites (col. 2, lines 44-50).

With respect to claim 11, Schulze ('947) does not disclose the claimed features. However it would be inherent that the reaction products of Schulze ('947) are capable of oxidizing more than one nonferrous, rare or precious metal as claimed because the reaction products of Schulze ('947) would be the same as the reaction products of the instant invention as discussed in the paragraphs above.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 7 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schulze ('947).

The teaching of Schulze ('947) was discussed in the paragraph 1 above.

With respect to claims 7 and 19, Schulze ('947) does not disclose that the solvent is a hydrochloric acid solution as claimed. However, Schulze ('947) discloses recovering precious metals from ores containing them by treatments in an aqueous acidic medium in the presence of an oxidant and a reducing agent (col. 2, lines 1-7) without limiting the type of acidic solution to be used. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the hydrochloric acid solution as claimed with expected success, because Schulze ('947) discloses the same utility over different types of acidic solutions. See MPEP 2144.05 I.

### ***Conclusion***

3. This Office action is made non-final. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Weiping Zhu whose telephone number is 571-272-6725. The examiner can normally be reached on 8:30-16:30 Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

WZ

8/27/2007

  
ROY KING  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700

Continuation of Attachment(s) 3. Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :9/13/2006, 6/12/2006 and 6/8/2006.